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AUTHOR Zolliker, Susan
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Exploring the use of the prefix "meta" and the use of "meta" terms in the context of Lev S. Vygotsky's theories demonstrates that students need to use language to learn about language. "Writing about writing" is already part of many classrooms, but by establishing a connection between metadiscourse written informally and metadiscourse written within a formal essay, composition teachers may discover less need for exhortation, and composition students, more incentive for exploration. Perhaps the real value of "meta" terms is that they may allow writing teachers to resensitize themselves to a process which they have internalized. "Meta" terms also remind teachers of the difficulties encountered as a writer begins to be progressively aware that written language is shaped, shifted, shaded, and transformed. Encouraging students to use written language to their own diverse, perhaps idiosyncratic purposes is the most appropriate and promising way to foster the sensitivity to the world of language which students, from age five onward, naturally exhibit and develop. (PRA)

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Susan Zolliker
University of San Diego

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Putting Meta Terms in Context: Constructing a Developmental Picture and Exploring Philosophical Implications

Susan Zolliker
University of San Diego

In academic disciplines concerned with language and cognition, the past fifteen years have seen a proliferation of meta terms: metalinguistic awareness, metacognition, and metadiscourse, metaknowledge, metacomment, and metafiction, to name a few. While the prefix meta is typically translated as "about" (as, for instance, metalanguage is described as language about language), it seemed to me, when I first began this adventure with meta terms, that it must mean something more specific and substantial -- if, that is, there were a legitimate reason to plug it onto the front end of so many otherwise important and useful words.

In the process of exploring what meta might mean beyond "about," I encountered the issue of context: in particular, research which used information processing models seemed especially fond of meta terms, yet particularly unable to provide insight into what meta might mean. In the first section of my talk, then, I will describe the two ends of the context spectrum.

From there, en route to meaning, via Lev S. Vygotsky's theories regarding the process by which mediated behaviors become internalized, I began to see that three of the meta terms I had been using as "subjects" for my research very possibly inscribed a developmental spiral very much like the one described by

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Vygotsky. Those terms, in order, are: metalinguistic awareness, metacognition, and metadiscourse. The second part of my talk, then, relates the rough framing of this developmental spiral.

Finally, I considered the question: Of what use was this meaningful connection between meta and mediated higher psychological processes and this rough developmental framework? My answers to those questions, which I will summarize at the conclusion of my talk, involve a word which Ann Berthoff reminds us is itself a meta term: method -- the convergence of theory and practice in the classroom (Making, 4).

Metalinguistic awareness was not the first term I investigated, but it was the first one which presented me with some useful problems. There was virtually complete agreement about its importance, and there was substantial agreement that it involved, or was involved in, the acquisition of written language; beyond that there were mostly vague similarities about what it meant, and very little common ground in testing design and procedures. Here, I will limit my discussion to the two ends of the spectrum I encountered. On one end were cognitive psychologists who included metalinguistic awareness as one aspect of metacognition. They define metacognition as the ability to think, consciously, about thinking -- a capacity whose first appearance is usually assigned to middle childhood (Tunmer and Herriman 27). However, even cognitive psychologists themselves (in this case Ann L. Brown, John B. Bransford, Roberta A. Ferrara, and Joseph C. Campione) admit that metacognition already risks becoming a

"fuzzy," catch-all term (111). The source of this "fuzziness" is that the information-processing model used by most investigators of metacognition has nothing to which to attribute this sort of "executive power" or ability to step outside the system. By definition, an information-processing model, which portrays the human mind as a sort of computer, describes what happens inside the brain; therefore, it necessarily eliminates from consideration the roles of social interaction and symbolic development, both essential factors in language development and use.

At the other end of the spectrum is Anne Haas Dyson, who uses Vygotsky's model of the development of symbolization as the basis of her research. Dyson tests for children's metalinguistic awareness by observing their prealphabetic concepts of what it means to write. According to Vygotsky, written language develops through gestures, spoken language, and symbolic play. The first "writing" is actually drawing -- making direct, graphic representations -- and the first drawing is essentially gesturing with a pencil in hand (Vygotsky 107). For example, during a "writing" session one of Dyson's subjects said, while engaged in rapidly drawing a large scribble, "I don't know [what it is], but it's running fast" (206). Vygotsky observed that when children discover that they can "draw speech," writing becomes secondorder symbolism (signs that represent sounds and spoken words which represent "real" objects and entities) (106). It is knowledge of this capacity that Dyson labels metalinguistic awareness, and it

is this awareness that is both required for and an important aid in acquiring written language.

Like Vygotsky, Dyson concludes from her studies that there is no single, direct developmental road to literacy. Dyson cites four case studies of children with different interests, "styles of functioning" (211), and approaches to writing. Ashley "writes" stories by drawing pictures, and occasionally forming approximations of letters, as he narrates, without being concerned about his, or anyone else's, ability to "read" what he has "written." Tracy spells conventional words by memorizing their spacial appearances and by requesting unknown words from others. Rachel puts down letters randomly, and although she is aware that her writing is not "real," she writes for real purposes: making lists, writing letters to friends, and creating dialogues for stories. Vivi is most interested in figuring out how the encoding system works (213).

As a result of exploring language idiosyncratically, each of the four children possesses a different sort of <u>metalinguistic awareness</u>, but each child also apparently has the prerequisite amount necessary for learning to read and write. Young children apparently cannot learn to read or write without some rudimentary capacity to grasp that language is something <u>outside</u> of themselves. Children's growth as a readers and writers seems to be a result from their explorations of the relationship between written language and themselves; at best, that explora-

tion is an extension and continuation of each child's symbolic development which may follow diverse paths.

Rather than metalinguistic awareness falling under the umbrella of metacognition, it seems more likely that metalinguistic awareness precedes metacognition and contributes to the latter's emergence in middle childhood. In fact, Vygotsky, too, observed internalized behaviors which correlate with what is now called metacognition. One important distinction, however, between Vygotsky's theories and the information-processing model involves the definition of memory and strategies for remembering. In the information-processing model, memory is storage space, with space being the operative word. Strategies for increasing efficiency, or functional capacity (i.e., being able to remember more or remember more readily) operate by "freeing up space"; a strategy allows either for more units of information to fit into the available storage space or for units of information to be processed more quickly. For Vygotsky, memory and mnemonic strategies are not simply matters of space and efficiency. When children first employ an external object or symbol to help them remember something, they not only increase their capacity to remember, but also change their response to a memory task from a linear, or binary, one to a triagular, or mediated, one. This, Vygotsky writes, "transfers the psychological operation to higher and qualitatively new forms and permits humans, by the aid of extrinsic stimuli, to control their behavior from the outside" (40).

My contention is that meta means what Vygotsky means by mediated behavior, and that what all meta-terms share is an at least implied nod to the fact that signs -- and in our case, language in particular -- allow us to get outside of, and beyond the limitations of, our own brains.

As an illustration of this ability to use signs to mediate our psychological processes, Vygotsky describes a memory game which both children and adults were asked to play. In order to win the game, the players needed to answer a set of questions about the color of various items without using forbidden words (such as blue) and without repeating the same answer for more than one question (even if, for example, two questions were "What color is the sky?" and "What color is the ocean?"). In a second version of the game, the same players were given a set of colored cards to use as mnemonic aids in whatever way they wished. The youngest children (ages 5-6) were unable to use the cards in any useful way, and fared equally poorly on both versions of the game. Those in middle childhood (ages 8-9) performed only slightly better on the first version of the game, but cut their errors in half when allowed to use the cards. The adolescents (ages 10-13), again, improved only slightly over the performance of the 8- and 9-yearolds without the use of the cards, but eliminated nearly all of their errors when allowed to use them. The adults performed significantly better than the children on the first version of the game, but, like the youngest children, did not fare much better when allowed to use the cards (40-45).

Vygotsky explains these results as the process of internalization. On the surface, the behavior of the youngest children and the adults appears similar, or parallel, in that neither group uses external aids to its advantage. The children in the middle age groups, however, illustrate that the development of sign-use is a process, and the developmental "big picture" shows that there is a fundamental difference between the adult and the young child: the adult has internalized the use of signs as a means of remembering, and so does not need the cards, while the young child has not yet moved from linear to mediated behavior, and therefore finds the cards to be of no help.

"Development," Vygotsky writes, "as often happens, proceeds here not in a circle but in a spiral, passing through the same point at each new revolution while advancing to a higher level" (56). Therefore, according to Vygotsky, it is crucial when studying the development of psychological behaviors to consider phenomena not as static instances, but as historical processes which develop from infancy through adulthood.

In a "historical" scenario, then, <u>metalinguistic awareness</u>, would roughly correlate with the awareness of the cards but the inability to use them to any particular cognitive advantage. <u>Metacognition</u>, in turn, describes precisely that ability to use signs and language to a noticeable cognitive advantage. What, then, happens as development "spirals" upward toward adulthood? When -- and how -- does this cognitive advantage <u>with</u> language show up <u>in</u> language, particularly written language? And when --

and how -- do we become able to use our internalized advantage with signs like words to consciously consider our writing: our relationship with our audience, our purpose for writing, or our relationship to our subject matter?

Walter Loban's data from his longitudinal study of children's language growth from kindergarten through high school shows that there is a change in the syntax of students at ages 10-12 which corresponds with their cognitive growth. The adolescents begin to use structures which allow them to express not only more sophisticated relationships between ideas, but also relationships between themselves, those ideas, and a reader. The adolescents' use of subordinate clauses of concession and auxiliary verbs like _might_, _could_, and _should_ seems to indicate their awareness (or consciousness, or self-consciousness) of themselves as speakers or writers -- or _mediators_ of experience and ideas (81-84).

It is, interestingly, in the writing of students at this age that we first see instances of _metadiscourse_. As Joseph Williams uses the term in his composition text, _Style: Ten Lessons in Clarity and Grace_, _metadiscourse_ is "writing _about_ writing, whatever does not refer to the subject matter being addressed." The "more common types" include: **Hedges** (_usually_, _apparently_, _in my opinion_); **Emphatics** (_clearly_, _obviously_, _always_); **Sequencers** (_first of all_, _in the next section_); **Topicalizers** (_Where such and such is concerned_, _In regard to such and such_); and **Attributers** (_I think_, _I have concluded_) (47-52). However, Williams uses the

term metadiscourse to describe a category of "errors" which students frequently make in writing academic prose, not to explore the development of written language. Still, there is an obvious connection: the syntactic structures that adolescents are beginning to grow into are precisely the ones which allow them to write about what they are writing.

Is it possible that metadiscourse is a sort of written version of egocentric speech, an externalized behavior of late adolescents responding to directives to "write academic essays" which passes through a point on the developmental spiral parallel to but higher than that of Dyson's kindergarteners? Is it possible that the excessive metadiscourse that Williams notes is actually evidence of a writing-related higher psychological process en route to becoming internalized?

A major problem with studying internalized behaviors is precisely that they are internalized. Protocol studies, such as those conducted by Linda Flower and John Hayes, provide one method of "exposing" what is going on in writers' minds as they write. Furthermore, since Flower and Hayes use their protocol data to compare the composing of expert writers (usually teachers of rhetoric and writing) with those of novices (usually college students who sought help for their writing problems), we may find some clues regarding the disappearance of excessive metadiscourse.

At the core of the differences between experts and novices are the expert writers' greater abilities to be aware of their

audiences, their own language, and their writing processes, and to be able to "translate" that awareness into actual text. For example, through their superior ability to diagnose problems rather than simply detect them, expert writers, not surprisingly, outperform their novice counterparts in rewriting and revising. Expert writers' abilities to diagnose, say, a problem in parallel structure and quickly revise the sentence, for instance, draws on both "a vocabulary for thinking about" the problem (metalanguage) and what Flower and Hayes call "metaknowledge of their own writing to monitor the process itself" (Detection, 46). Elsewhere Flower and Hayes cite protocols in which language they term metacomments becomes actual text: certainly a synonym for metadiscourse (Dynamics, 21). Clearly, the ability to use metalanguage (internally) and metadiscourse (externally) to their own purposes is an important part of what distinguishes expert writers from their novice counterparts.

Flower and Hayes conclude that novice writers "are merely trying to express a network of ideas already formed and available in memory," while experts have an "ability to direct and monitor [their] own composing process," an "important part of an experienced writer's repertory and related to the powers of metacomprehension children develop as they learn to write" (Pregnant, 242). What the experts' protocols reveal is that they have not stopped thinking excessive metadiscourse; rather, they have internalized and capitalized upon it.

This developmental scenario, though admittedly sketchy, reveals that there is a meaningful reason for the frequency with which meta-terms appear in research in language acquisition, composition studies, and cognitive psychology. I believe that meta's full meaning best captures the radically significant, if not requisite, factor or force or phenomenon at work from a child's first encounters with language through her growth into a competent adult writer or even an "expert." Thus, meta provides a powerful link for us to connect research and better understand how we develop as users of written language.

This leads me to my concluding question: Of what practical use is this meaningful connection between meta and mediated higher psychological processes and this rough developmental framework? I do not mean to suggest that we should use meta terms in the classroom -- quite the contrary. I mean, rather, that our awareness -- as scholars and teachers -- of what meta implies and presupposes can guide both what we do in our classrooms and what we make of what our students do in their writing.

Calling these implications "philosophical," as I have in the title of my talk, borrows from Ann Berthoff's description of an approach to composition which joins teaching theory with teaching practice -- the convergence of which, as I mentioned earlier, is described by the meta-term method. Berthoff's work connects with my discussion of meta-terms at two other significant points. First, her "curious triangle" -- in which "you can get from the symbol to what it represents only by means of a meaning, a

mediating idea" (Teaching, 751) -- is the same as Vygotsky's diagram of mediated higher psychological processes. Berthoff writes that the "curious triangle" can help us "focus on ways to bring students to see texts as the intermediary form of a process of making meaning" (Making, 77).

Secondly, she describes the phenomenon I've called the internalization of metadiscourse when she writes:

> Some experienced writers can keep track of what they are saying in that interior dialogue and thus audit their meanings in their heads, but students with learning and language difficulties should write it down, continually. In that way they can learn to **recognize the interior dialogue** and keep the dialectic going. Writing at all stages of composition brings to full consciousness the experience of the mind at work, the imagination in action (Making, 77).

Both of these connections lead us to practical guidelines. In meta terms, then, that means that we can encourage students to learn from their own metadiscourse by actually encouraging them to write it. One method for doing so is Berthoff's "dialectical notebook" in which students write their observations, reading notes, lists, and images on the right-hand pages of a spiral notebook and later on reread those pages and write on the left-hand pages "notes about those notes, summaries, formulations, aphorisms, editorial suggestions, revisions, [and] comment about comment" (Making, 45).

The essential point is that students need to use language to learn "about" language; being told -- or even gently advised -- to simply take out what an experienced writer would have accomplished in her head is counterproductive. Likely, "writing about writing" is already a part of a great many classrooms. However, by establishing a connection between metadiscourse written "informally" (in a journal entry, perhaps spontaneously; a more structured notebook, such as Berthoff's dialectical notebook; a writing exercise; or even a note to the teacher at the end of a troublesome essay or draft) and metadiscourse written within a formal essay, composition teachers may discover less need for exhortation, and composition students, more incentive for exploration.

Perhaps the real value of meta-terms, however, is that they may allow teachers of writing to re-sensitize themselves to a process which they have internalized, and to remind them of the difficulties encountered as a writer begins to be progressively aware that written language is shaped, shifted, shaded, and transformed. Vygotsky believed that writing should be allowed to develop naturally as written language, the culmination of children's symbolic development -- advice that, in the context of my exploration into the meaning of meta, seems well to heed (106). I believe that, as Berthoff suggests, encouraging students to use written language to their own diverse, perhaps idiosyncratic purposes is the most appropriate and promising way

to foster the sensitivity to the world of language which students, from age five onward, naturally exhibit and develop.

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